AËRIAL NAVIGATION IN ITS RELATION TO INTERNATIONAL LAW

BY ARTHUR K. KUHN

Of the New York Bar

It is not my purpose to discuss problems of either international or municipal law which are merely speculative in character. My discussion will be limited to the problems of law presented by what invention has already accomplished, or conditions which are reasonably certain to flow from its achievements. Whenever mechanical, chemical, or electrical science introduces new forces into the life of man, it may reasonably be conceived to be the task of jurisprudence to adjust and coördinate the legal relations of both states and individuals under the new conditions. Nor is it always the part of wisdom to disregard formulative methods by relying on the application of principles derived from an old régime.

It has been urged against our own Constitution that, being written, and difficult of amendment, its provisions tend to become unfitted to the changing conditions of life. The advancement of science has made state boundaries merely political where they once were social as well. One of the most difficult duties which our Federal courts have to discharge is the interpretation of the brief, simple phrases of the Constitution to be adequate to the needs of the nation, once a sparsely settled community with slow, meager and irregular means of communication, now a vast commonwealth bound together by arteries of speedy and regular railroad transportation and by immediate communication through telegraph and telephone.

So, too, in the international world, the increase in number and efficiency of the means of transportation and intercommunication, the application of new forces applied to the conduct of warfare and the pursuit of commerce in times of peace, create new conditions which must be analyzed and dealt with in a manner satisfactory to the demands of justice and consistent with a humane conduct of life among men and nations.

The beginnings of aërial navigation go back some two hundred years. The recent achievement of science, however, consists, as we all know, in the ability to launch aircraft, whether in the form of balloons, lighter than the air, or in the form of aëroplanes, or similar devices, heavier than the air, which shall answer the will of a navigator and proceed to a distant point with passengers or light freight, or both. This much has been accomplished. That it may ultimately serve the purposes of commerce in a larger sense, though not negatived, has not yet been demonstrated, nor is it necessary for the purpose of the present discussion.

There is a general belief that aërial navigation is in its early infancy, and almost sure to make rapid progress. Large sums of money and great expenditures of time and of intelligent effort are being devoted to its further development in many countries. In Germany, the unusual national movement in its support, which took place during the current year, has demonstrated the intensity of the popular will that it shall succeed. The governments of the great Powers are vigorously cultivating the art for use in the army and navy and so great has been the impetus given to it from this source, that it will undoubtedly play an important rôle in the next great war. The Geneva convention, first applicable only to land warfare, has been extended, wherever appropriate, to maritime conflict and the necessity for a further extension to aërial warfare would seem to be imminent.

It would seem timely therefore to consider the introduction of aërial navigation into the life of man in some of its legal aspects. Jurisprudence follows the path of science as the flag of a nation follows the territorial explorations of its subjects. Thus, as the airspace comes under the domination and control of man, it is embraced within the jurisdiction of law. The subject has already received the attention of European publicists. The Institute of International Law has a *projet de loi* before it; Meili has written an interesting monograph;[1] Grünwald has published a more extensive work;[2] an entire part is devoted to it in the manual of international public law recently published by Bonfils and Fauchille. No discussion by a British or American authority has come to my notice except in connection with the limited number of problems considered by the Hague Peace Conferences.

[1] *Das Luftschiff im internen Recht und Völkerrecht.*

[2] *Das Luftschiff in völkerrechtlicher und strafrechtlicher Beziehung.*

IN TIME OF PEACE

We are at the outset confronted with the question whether the navigation of the airspace should not be conducted exclusively or principally by governmental agencies. The hazardous nature of the traffic, its menace to the maintenance of customs barriers, its adaptability for postal communication and its importance to the protection of sovereignty, are considerations which favor regulation if not complete expropriation by the state.

Countries which have heretofore pursued the policy of governmental ownership of public utilities will assuredly follow that practice at least in respect of regular lines of travel. This policy may prevail even in countries like our own, which have till now followed the general principle of private ownership under a more or less extensive public control. There are striking differences between the intercourse contemplated by an extensive exploitation of the airspace and the operation of vehicles upon a public highway or of cars upon a railroad. The due performance of international obligations, which we will consider later, may in itself require either governmental operation of all regular lines of aircraft or a strict governmental registry and control.

It would seem essential to subject the traffic to concessionary control if for no other reason than that of public safety. The prerequisites for the franchise and the obligations to be undertaken in connection with it are naturally the subject of scientific rather than juristic determination. A system of governmental inspection would seem to suggest itself like that now prevailing over ships of the sea. In fact, this analogy is suggested by many elements in the construction and operation of the most successful aircraft thus far built. This would also indicate what indeed is a probable legislative result, viz., a registration of all aircraft in a particular locality and a nationality symbolized in the carrying of the flag.

A draft regulation for general convention acceptance was elaborated by Fauchille for the Institute of International Law at its Brussels Conference of 1902, under the title "*projet de règlement sur le régime juridique des aërostats.*"[3] This proposes the constant display of the flag and enumerates signals to distinguish public and military from private craft (Art. 2). It is also provided that the commander shall carry official documents comprising an extract of official registry,

[3] *Annuaire* of the Institute, xix, 1902, pp. 19–86.

a list of the crew, the brevet, charter party, manifest and log (Art. 4). Further provisions of a detailed character have been embodied in the project, many of which seem to us premature as legislative problems at this time. It is sufficient to acknowledge that the navigation of the air is a matter of public concern, and that its advancement as a medium of commerce will depend upon the wisdom and breadth of view which the organs of government exercise in making laws and regulations for its guidance.

Before discussing international rights and obligations it may be well to consider the extent of private right in the airspace. If indeed the owner of land has a proprietary right in all the air abutting in a vertical direction, the establishment of regular lines of aërial travel would require an extensive exercise of the right of eminent domain for the expropriation of easements. The Roman law recognized, in terms at least, an unlimited right of private property in the air above the soil. *Cujus est solum, ejus est usque ad cœlum.* The common law seems to have adopted this doctrine from Roman sources.[4] In some of the less recent European codes, the ancient theory is in fact enacted into positive legislation. The Civil Code of Austria, for example (§297) designates as immovable chattels, "houses and other structures together with the airspace over them in a vertical direction," thus constituting the airspace a real right of appurtenance.

But modifications have been introduced into later codes. The Code of the Canton of Grisons provides (§185):

"Property in land extends to the airspace (above) and the earth beneath, so far as these may be of productive value to the owner."

The German Civil Code (§905) recognizes property in the airspace, but denies to the owner any right or remedy to forbid trespass at such a height or depth as can cause him no material injury. It has been held that the owner of land cannot legally object to telephone wires strong across it at such a height as not to interfere with its reasonable enjoyment. The principle of modified right has been enacted also in the new Swiss Civil Code (§667), and it may indeed be said to be the modern doctrine of continental Europe.

There has been no such modification in Anglo-American legal practice. I fail to find any precedents which bear directly on the present discussion, but the cases of overhanging branches and tres-

[4] Coke Littleton, 4a; 2 Blackstone Comm. 18.

passing wires all seem to confirm absolute ownership. It may well be, however, that courts will disregard technical trespass by aircraft under the rule of *de minimis* and reach similar results without the intervention of new legislation.

The rights and obligations of states *inter se* are analogously dependent upon the extent of sovereignty which each enjoys in the airspace over its territory. As the air is a great fluid of resistance like the sea, we are invited to draw comparisons between the two. In fact, the reasons advanced by Grotius for denying all sovereignty over the sea apply equally to the airspace. All property, says he, is grounded upon occupation, which requires that movables shall be seized and immovables enclosed.[5] But this, a result of Roman ideas of private property, has long given way to the modern theory which is that the sea is free because no state is able permanently to enforce its sovereignty over it, and occupation must be effective in order to be valid. Therein lies the difference, for the state beneath the airspace may make its right of property effective by control. Furthermore, there is a direct interest on the part of the state in the abutting airspace if for no other reason than the law of gravity. Protection to the health and safety of its subjects, to its customs and immigration barriers and to its political integrity will always require the reservation of certain rights.

We cannot approve, therefore, of the broad terms of the provision as framed by the Institute of International Law at its Ghent session of 1906 (*Régime des Aérostats et de la Telegraphie sans fil.* Art. 1.): "The air is free. States have only such rights over it in time of peace (and in time of war) as are necessary for their conservation."

Of course, this does not assume to be a statement of existing international law; but considering the free development of aërial traffic in the interest of progress, the Institute has made this suggestion for future conventional regulation. But even in this light the provision is too radical because inconsistent with the actual trend of international law. The right of the craft of one nation freely to traverse the airspace of another may be compared with that of the vessels of one state free to navigate the river of a coriparian state especially when the river becomes navigable within its own territory. It is true that this has been asserted as a right of international law,[6]

[5] *Mare liberum, cap. 5.*

[6] Bluntschli, §314; Calvo, §§259, 290–291 Wheaton calls it an imperfect right, only to be effectuated by convention.

and even the United States relied upon it at one period of its history. The doctrine generally accepted and acted upon, however is stated by Phillimore and Hall, both of whom predicate a right of exclusion.[7] They admit that the exercise of it would be harsh and unjustifiable unless the necessities of the state so required and say that the ordinary rule of law should be waived in favor of the general good.

For the reason given, sovereignty over the airspace is comparable with that exercised over territorial waters, and not with that over the high seas, and therefore even conventional regulation should begin by an admission of sovereignty and be followed by an enumeration of such easements as enlightened policy may dictate.

Fauchille, Rolland[8] and others have suggested that the states should agree upon a zone of isolation above which traffic shall be free. Within it, all craft shall comply with fixed regulations such as in respect of the signals to be given and the place of descent, and public craft must obtain the consent of the local state through diplomatic channels. But an attempt to set up artificial zones seems unwise if for no other reason than that of the topography of the earth and the limitation of atmosphere available for human life.

The sphere of sovereignty should be determined not by arithmetical standards but by the safety and convenience of the state.

AS TO CRIMINAL JURISDICTION

In the administration of criminal justice international conflicts of law and jurisdiction will be rendered more numerous as well as more difficult by the advent of aërial navigation. A new instrument is presented by means of which crimes of violence may be committed while capture is rendered more difficult. Offenses may be committed from voyaging aircraft against persons or property on the land surface of the earth, on the high seas, or on other aircraft, or conversely by persons on the land or sea surface of the earth against persons or property on voyaging aircraft. In regard to both classes, a doubt might arise as to whether, as the case may be, an offense has been committed within the territory of the state below, or upon the high seas, within the present meaning of these terms. Let us avoid

[7] Hall, International Law, 5th ed., p. 140.

[8] *Revue de droit international public*, xiii, 68, in which it is suggested that the zone of isolation shall extend to a height of 330 meters (the altitude of the Eiffel tower).

doctrinaire discussion and assume that it has; even then it would in most cases be unsatisfactory to rely solely upon the jurisdiction of the local state because voyaging aircraft readily escape, and in the case of an offense begun and completed in the air, the peace of that state may be violated in only a very narrow sense.

To meet the situation it has been proposed to extend by convention the "floating territory" theory to aircraft in the following terms (Fauchille, Art. 15):

"Crimes and delicts committed on board of aircraft by members of the crew or other persons on board, no matter in what part of the airspace, fall under the competence of the tribunals of the nation to which the aircraft belongs and shall be judged according to the laws of such nation, no matter what be the nationality of the authors (of the crime) or the victims (thereof)."

This would deprive the local state of all jurisdiction and on that account would probably never obtain official confirmation. The jurisdiction should be concurrent and not exclusive, just as it is, indeed, in respect to offenses committed on foreign vessels in territorial waters. We approve, however, of the further provision (Art. 15, 2) wherein an offense directed against the security or fisc of a state, such as conspiracy, treason, counterfeiting, etc., is referred to the tribunals of that state, no matter where the offense was committed. Indeed this is now the prevailing rule of international law wherever the offender is arrested within the injured state.[9] The new feature of the project consists in that it contemplates a surrender to the injured state.

We conclude this branch of the subject by noting the suggestion made by a European authority[10] that the problems presented by the introduction of aërial navigation may prove to be an initial impetus to a movement between the nations toward a general conventional regulation of the conflicts of jurisdiction in respect of crimes.

IN TIME OF WAR

Along with the subjects submitted for discussion to the First Hague Conference by the circular letter of Count Mouravieff, of January 11, 1899, was a proposal to restrict the use in military warfare

[9] Wharton, Criminal Law, 10th ed., §§274, 275.

[10] Meili, *ubi cit.* 43 n. 8.

of the formidable explosives already existing, and to prohibit the throwing of projectiles or explosives of any kind from balloons or by similar means. The proposal so far as it related to aërial craft was not called forth by any actual experience in modern warfare. Balloons were used by the French as early as the battle of Fleurus in 1794, by the Russians in 1812, by our Federal troops in Virginia, by the French at the siege of Paris, and by the British in the Boer war. Their employment was limited, however, to reconnoitering and to escape from siege. The proposition therefore was apparently an effort to anticipate the future progress of aërial science.

Mouravieff's proposal was referred to a committee which in turn submitted it to its military sub-committee. This sub-committee first voted a perpetual prohibition of the the use of aircraft for throwing projectiles or explosives, which, on motion of the American delegate, Captain Crozier, was limited, in full committee, to cover a period of five years. In this form, it was passed by the Conference and accepted by the Powers.

The action was for humanitarian reasons alone and was founded on the opinion that in the condition of the art as it then existed, persons or property injured by this means, might be entirely disconnected from the conflict, and its use, therefore, of no practical advantage to the belligerent. The period of five years was intended to allow complete liberty of action under such changed circumstances as might be produced by the progress of invention.[11]

The prohibition expired by limitation on July 28th, 1904, and the subject was therefore again brought up for consideration by the Second Hugue Conference under a suggestion made by the Belgian delegation to renew the prohibition in exactly the same terms.[12] In subcommittee two amendments were made, to be applicable in the event of a failure of the main proposal, one by Russia, the other by Italy. Russia proposed to limit forever attacks by these means upon undefended places. Italy proposed to add to the Russian proposition that no projectiles or explosives should be launched from balloons not dirigible and manned by a military force, and furthermore that the same restrictions that rested upon land and naval warfare should apply to aërial warfare "wherever compatible with this new method of combat."[13]

[11] Holls, The Peace Conference at the Hague, p. 95.

[12] *Deuxième Conférence int. de la Paix. Actes et Documents*, I, p. 104.

[13] *Id.* p. 105.

The declaration as finally passed was in the same terms as that of the First Conference except that, at the suggestion of Great Britain, the renewal extends to the close of the Third Peace Conference. The declaration has been ratified among others by Great Britain, Austria and the United States, but though the period for ratification expired June 30, 1908, seventeen nations have failed to give assent, among them, France, Germany, Italy, Japan, Mexico and Russia. On the principle that since the period of conventional regulation of the usages of war, everything may be done which is not expressly forbidden by treaty or customary practice, and as there is no precedent whatever governing the use of aircraft in advancing the cause of a belligerent, it would seem that in the absence of such a prohibition, it would constitute a legitimate operation of war. The launching of projectiles from balloons has been placed in the same class of undertakings as the subjection of coast cities to ransom at the demand of a powerful fleet. Neither has been seriously considered by a responsible belligerent, yet both constitute a sufficiently serious menace to humanity to warrant consideration by international conference.[14]

An objection which has been raised to the prohibition as framed is the fact that there is no reciprocal prohibition against firing upon aircraft. This would make them open to attack, yet deprived of their proper defense.[15] The real opposition seems to lie in the technical position of the respective Powers in regard to their present land and naval forces and the advancement which each has made in aërial art. A great naval power like Great Britain would naturally be interested in the prohibition, by reason both of the menace to her military isolation and because the strongest naval vessel might not be proof against destructive agents thrown from above. It may yet be that a supposed advantage by reason of superior naval strength may be much reduced if not entirely eliminated by compensating advantages in aërial strength. That Germany has thus far abstained from ratifying the declaration might seem to be a result of her progress in the use of dirigible aircraft and the great expenditures of money being made for this account. Russia's change of attitude may be accounted for in a similar manner by the loss of her navy since the First Hague Conference.

[14] George B. Davis, in Amer. Jour. Int. Law, vol. 2, p. 528.

[15] H. W. L. Moederbeck, *Die Luftschiffart*, p. 103; George O. Squier, Major, U. S. Signal Corps, The Present Status of Military Aëronautics, §201.

The proposal contained in the amendment advanced by the Russian delegation to render unfortified places immune from attack by aircraft was given effect in a much broader form than was then expected. The immunity of undefended places was discussed under the general regulation of land warfare and an absolute prohibition against the bombardment of undefended towns, villages and dwellings "whatever be the means employed" was agreed upon and is now a part of the convention on the laws and customs of war (Art. 25). This does not refer to bombardment from the sea, but there can be no doubt of its application to aircraft. As an American authority has said, "When exposed to such an attack, no place can be said to be 'defended.' "[16] It is strange that though the original declaration has failed of endorsement by many states, the amendment has been given broad conventional effect through the action of a different committee.

The treatment to be accorded to the crew of captured aircraft in time of war has also constituted a serious problem in international law. During the war of 1870, a strong inclination was shown on the part of Germany to treat them as spies. Sixty-four balloons were launched during the siege of Paris, and it will be remembered that Gambetta made his escape to the provinces in this way. Bismarck favored extreme measures, and in fact all balloonists who passed over the German lines were severely dealt with when captured. This attitude has been much criticized by writers upon international law as "neither secrecy, nor disguise, nor pretense" is possible for those who man aircraft.[17]

The dispute has now been definitely settled through Art. 29 of the Hague convention which provides that "individuals sent in balloons for the purpose of transmitting dispatches and the general keeping up of communications between the different parts of an army or territory" shall not be treated as spies, and the French official manual for the use of military officers specifically affirms their right to be treated as prisoners of war.[18]

It has no doubt been assumed that the obligation of a neutral state extends to the airspace over its territory as well as to its land surface and territorial waters. But the extent of that obligation has

[16] George B. Davis, *ubi cit.*

[17] Hall, 5th ed. p. 540.

[18] *Manuel a l'usage, etc.*, p. 40.

never been defined. An absolute duty to exclude the passage of belligerent craft through its airspace would indeed be onerous. Again, with the increasing capacity of air craft to carry articles of greater or less weight, a law of contraband applicable to aircraft may in time be developed. I simply mention these questions in passing, however, as they are not yet of sufficient practical importance for useful discussion at this time.

CONCLUSION

The present period is manifestly an introductory one in the development of a new medium of inter-communication and traffic. It is doubtful that the air will ever be as important commercially as the sea, yet science is the cause of many surprises. But even in its present development, the nations are now united by a closer bond, for the air is a medium in respect of which each nation, no matter how small in area, or howsoever situated, is equally favored in harbor and coastline. Indeed, it has been denominated "the universal highway."

On the other hand, while the advent of efficient aircraft will extend the plane of warfare to a third element, the ultimate result will tend to make for the maintenance of peace. Small parties may be able to pass over protective armies on expeditions aimed at the seat of government itself, where the body of particular individuals most responsible for the war reside. This fact will tend for the first time to subject responsible individuals to immediate and personal danger after the declaration of war, which heretofore has not been the case, and thus the development of aërial navigation will make for peace.[19] Its advent, therefore, will be beneficial from both points of view. In peace, its development will depend upon sacrifices of the lesser for the greater good. In war, its use should be restricted so as to extend to it a humanitarian control equal to that exercised over the methods of warfare now employed.

[19] Squier, *ubi cit.*, §215.